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JOHN S BEULICK
ARMSTRONG TEASDALE LLP
ONE METROPOLITAN SQUARE
SUITE 2600
ST LOUIS, MO   631022740

EXAMINER
SHAFFER, ERIC T

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _4//18/2002_ .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-20_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _29 December 1999_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

　If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a) ☐ All b) ☐ Some * c) ☐ None of:

　　1. ☐ Certified copies of the priority documents have been received.

　　2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _3_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   This communication is in response to the amendments filed April 18, 2002.

Summary Of Instant Office Action

2.   Applicant's arguments, filed April 18, 2002, concerning claims 1 - 19 in the Office

Action mailed April 18, 2002, have been considered, deemed unpersuasive.

3.   Applicant's corrections to claim objections as per Examiner's suggestions as pertaining

to claims 1, 7, 9 and 10 – 19 are duly acknowledged, appreciated and entered.

        None of the old claims have been cancelled by the applicant and the applicant has

added one new claim in claim 20. Claims 1 – 20 are pending and are prosecuted in the response

set out below. Only one of the rejections in the Office Action mailed out on April 18, 2002,

namely the rejection under 35 USC § 112 has been withdrawn.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the United
> States before the invention thereof by the applicant for patent, or on an international application by another who
> has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
> thereof by the applicant for patent.

Claims 1 – 9 and 11 - 19 are rejected under 35 U.S.C. 102(e) as being anticipated by

Verba et al. (U.S. 6,236,977).

5.   **Claim 1** consists of evaluating models using structures that can segment gain charts to

discover where a model is under performing and analyze performance over time to discover user

defined trends. Verba anticipates this by disclosing a marketing system, a data structure for the

storage and retrieval of various campaign data, and a feedback loop between outbound

campaigns and inbound campaigns such that the results of inbound campaigns can be used to

monitor and improve the effectiveness of outbound campaigns (column 2, line 45 – 54).

6.   **Claims 2 and 12** describe the step of determining profitability over time. Verba

anticipates this by disclosing a database that stores product sales prices (column 20, line 62) as

well as a model that calculates average margin (column 21, line 12). Since average margin is a

measure of profitability, calculated by dividing profit by sales price, profitability is inherently

taken into account when calculating margin.

7.   **Claim 3 and 13** describe the step of determining where a response rate changes over

time. Verba anticipates this by disclosing a system that measures response rate by calculating

what percentage of sales leads became listings, what percentage of leads became deals and what

percentage of listings became deals in a specific time interval (column 21, lines 18 – 24).

8.   **Claims 4 and 14** describe the step of determining when a number of accounts have been

closed. Verba teaches a system that measures response rate by calculating what percentage of

sales leads became listings, what percentage of leads became deals and what percentage of

listings became deals in a specific time interval (column 21, lines 18 – 24). A lead that does not

become a deal is a type of closed account; therefore Verba teaches the determination of where a

number of accounts are being closed.

9.   **Claims 5 and 16** describe the step of evaluating models by creating historical structures

based on user defined attributes. Verba anticipates this by disclosing a campaign engine with

access to historical data, which has a broker interface by which a broker may specify and store

rules to be reflected in at least one marketing campaign and a customer interface for the input

and storage of customer attributes (column 24, lines 55 – 61).

10.   **Claims 6, 11 and 17** describe the step of discovering user-defined trends by analyzing a

particular population segment. Verba anticipates this by disclosing a campaign engine that stores

and retrieves attributes reflecting the readiness and desires of selected members of the public and

leads corresponding to selected members of the public (column 24, lines 44 - 48). Verba also

discloses an object model that captures the positioning of valuable items into marketing

segments (column 16, lines 58 – 59).

11.   **Claims 7 and 18** describe maintaining feedback into a targeting engine to improve

subsequent marketing cycles. Verba anticipates this by disclosing multiple feedback loops that

allow the system to be self-tuning (column 10, lines 21 - 23) and uses adaptive scoring, which

alters the scoring process based on relationships among the campaign attributes (column 22,

lines 46 - 52).

12.   **Claim 9** describes a system comprising of a database of historical campaign results with

a graphical user interface to present trend analysis and optimal targeting using models. Verba

anticipates this by disclosing a historical database of previous and actual predicted resource

values (column 23, line 58-62) which has several interfaces by which the user may input and

read information from the system (column 4, lines 14-18) and uses a prediction engine to access

said listing population data store and includes an historical database of previous actual values

(column 23, line 58 - 62) and has an optimization engine that uses multiple feedback loops to

perform optimal targeting and to improve subsequent modeling cycles (column 10,

lines 21 - 23).

13.   **Claim 15** describes determining the likelihood of a customer to make additional

purchases over time. Verba anticipates this by disclosing a database and prediction engine that

accesses the data structures to issue predictions based on historical data (column 3, lines 57 – 60)

and declares that the system can determine what customers have provided the broker with repeat

business in the last year (column 21, lines 18 – 19).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

15.   **Claims 8, 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Verba et al (U.S. 6,236,977) as applied to claims 1 – 9 and 11 - 19 above, and further in view of

the Barry de Ville article "Direct Marketing with ModelMax" from the Spring 1996 issue of

Marketing Research.

Verba teaches a database modeling system where different kinds of information can be input to and read from the system (column 4, lines 16 – 17) but does not specifically teach using gains charts for performance analysis. De Ville discloses a direct marketing campaign evaluation software product called ModelMax where "The primary validation tool provided by ModelMax is the lift or gains chart" (paragraph 23, sentence 3). It would be obvious to one of ordinary skill in the art at the time of the invention to have used the ModelMax gains charts with the Verba system in order to use gain charts to display user-defined trends and model performance in segments as output from a marketing campaign evaluation system.

16. **Claim 20** describes a method of evaluating marketing campaign data, the data being in the form of customer lists, database scores, stored procedures, and On Line Analytical Processing (OLAP) multi-dimensional structures.

Said method comprising the steps of:

a) generating gains charts by comparing marketing campaign customer lists to corresponding marketing campaign results and b) evaluating models by using structures that segment gains charts to identify where a model is under performing. Both are taught by De Ville, which recites a product called ModelMax where "The primary validation tool provided by ModelMax is the lift or gains chart" (page 58, paragraph 2) wherein "the gains chart also includes an option to assign revenue and costs. Essentially, this allows you to select a cutoff point for a mail campaign" (page 58, paragraph 4). Said product is "a good predictive model will allow you to identify the top 20% - 40% of the database records that contain 60% - 80% of the positive purchase outcomes" (page 58, paragraph 3). Therefore, De Ville teaches that past sales data can be used to generate a gains chart for the purpose of determining which persons on

a customer list are the most profitable prospects and worthy of being included in a mail marketing campaign.

c) Evaluating the model's performance over time and over a plurality of marketing campaigns; Verba anticipates this by disclosing a campaign engine with access to historical data, which has a "broker interface by which a broker may specify and store rules to be reflected in at least one marketing campaign" and "a customer interface for the input and storage of customer attributes" (column 24, lines 55 – 61). A campaign engine with access to historical data presents an invention fully capable of modeling performance over time.

d) Identifying user defined trends including identifying trends within segments by analyzing structures of a plurality of marketing campaigns in chronological order. Verba teaches this by reciting a campaign engine that stores and retrieves "attributes reflecting the readiness and desires of selected members of the public and leads corresponding to selected members of the public" (column 24, lines 44 - 48). Verba also teaches "an object model that captures the positioning of valuable items into marketing segments" (column 16, lines 58 – 59).

It would be obvious to one of ordinary skill in the art at the time of the invention to use the gains charts with the Verba system in order to use gain charts to display user-defined trends and model performance in segments as output from a marketing campaign evaluation system. Since gains charts were old and well known in the art at the time of the invention, it would have been obvious to incorporate gains charts into an invention like the Verba system in order to add an additional layer of granular analysis to the marketing data.

17.   **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Verba et al (U.S.

6,236,977) as applied to claims 1 – 9 and 11 - 20 above, and further in view of the Microsoft

Press definition of OLAP.

        Claim 10 describes a time-based, multidimentional OLAP system that uses historical

structures, where OLAP is defined as online analytical processing. Verba teaches a database

system uses "data structures for the storage and retrieval of various campaign data to monitor

and improve the effectiveness of campaigns" (column 2, lines 45 – 54). Verba does not

explicitly disclose the use of an OLAP structure, however, OLAP databases are commonly used

in the art of data storages as exemplified by the definition of "OLAP database" found in

Microsoft Press'

Computer Dictionary (3rd ed). The definition is a follows:

> A relational database system capable of handling queries more complex than those
> handled by relational databases, through multidimensional access to data (viewing the
> data by several different criteria), intensive calculation capability, and specialized
> indexing techniques.

        It would be obvious to one of ordinary skill in the art at the time of the invention to have

used the OLAP database during the development and implementation of Verba's device because

of its inherent advantages of handling more complex queries than the relational databases.

Response to Amendments

18.   Applicant's arguments filed December 28, 2000 have been fully considered, but the same

are not persuasive. Applicant argues:

        a) Page 3 of 16: Claim 20 is rejected because, as mentioned above in the analysis of

claim 20, it would be obvious to one of ordinary skill in the art at the time of the invention to

have used the OLAP database during the development and implementation of Verba's device

because of its inherent advantages of handling more complex queries than the relational

databases. The generating gains charts by comparing marketing campaign customer lists to

corresponding marketing campaign results and evaluating models by using structures that

segment gains charts to identify where a model is under performing are both are taught by De

Ville, which recites a product called ModelMax where "The primary validation tool provided by

ModelMax is the lift or gains chart" (page 58, paragraph 2) wherein "the gains chart also

includes an option to assign revenue and costs. Essentially, this allows you to select a cutoff

point for a mail campaign" (page 58, paragraph 4). Said product is "a good predictive model

will allow you to identify the top 20% -40% of the database records that contain 60% - 80% of

the positive purchase outcomes" (page 58, paragraph 3).

        The ModelMax example further recites that "a good predictive model allows you to

select a subset of records for mailing, for example, one with a probability of purchase is much

greater than would otherwise be the case if records were selected randomly" (page 58, paragraph

3). Therefore, ModelMax teaches that a subset of past sales data can be used to generate a gains

chart for the purpose of determining which persons on a customer list are the most profitable

prospects and worthy of being included in a mail marketing campaign.

Additionally, evaluating the model's performance over time and over a plurality of

marketing campaigns; Verba anticipates this by disclosing a campaign engine with access to

historical data, which has "a broker interface by which a broker may specify and store rules to be

reflected in at least one marketing campaign" and "a customer interface for the input and storage

of customer attributes" (column 24, lines 55 – 61). A campaign engine with access to historical

data presents an invention fully capable of modeling performance over time.

Finally, identifying user defined trends including identifying trends within segments by

analyzing structures of a plurality of marketing campaigns in chronological order. Verba teaches

this by reciting a campaign engine that stores and retrieves "attributes reflecting the readiness

and desires of selected members of the public and leads corresponding to selected members of

the public" (column 24, lines 44 - 48). Verba also teaches an "object model that captures the

positioning of valuable items into marketing segments" (column 16, lines 58 – 59).

Therefore, claim 20 merely recites the elements of OLAP multidimensional structures,

gain charts, user defined trends, and evaluating models using structures that were rejected in by

Verba in view of ModelMax.

b) Page 6 of 16: As per claim 1, applicant claims that Verba does not describe nor suggest

a method of evaluating marketing campaign data that includes evaluating models to discover

where a model is under performing, nor does Verba suggest evaluating a model's performance

over time and discovering user defined trends. The Verba invention, in connection with the De

Ville ModelMax invention, does in fact teach a device that incorporates and segments gains

charts in order to evaluate a marketing model. De Ville recites the use of gains charts because

"gains charts show how much more likely the best records are to exhibit a purchase outcome

based on the predictive performance of the neural model" (De Ville, page 58, paragraph 1).

Clearly, if a gains chart is able to show how much more likely the best records are to exhibit a

positive outcome, then the model must also be able to do the opposite and generate gains charts

that show how much less likely the worst records are to generate a negative outcome. The idea

that gains charts can be used to show how likely a record is to exhibit a specific purchase

decision based on the predictive performance of a model is taught by De Ville and was old and

well known at the time of the applicant's invention. Therefore, such a claimed capacity is not

new or novel.

c) Page 7 of 16: As per claim 9, applicant claims that Verba does not describe nor suggest

a system for evaluating marketing campaign data that includes a targeting engine configured to

evaluate models and define trends relating to the marketing campaign data. The Verba et al

invention does in fact teach the evaluation of marketing campaign data that includes a targeting

engine by disclosing a "marketing system further includes an optimization engine that accesses

campaign data, person data, property data, agent data and broker data. The optimization engine

utilizes a scoring process for ordering the members of a particular population. The scoring

process employs an adaptive scoring algorithm that alters the scores based upon relations among

at least some of the campaign attributes" (column 3, lines 27 - 35). In this example, the

optimization engine is a targeting engine that evaluates models in order to optimize the results

produced by the models.

d) Page 8 of 16: As per claim 1, applicant claims that Verba does not describe nor suggest a system for evaluating marketing campaign data that includes evaluating models and defining trends relating to the marketing campaign data. The Verba et al invention does in fact teach an "optimization engine that continuously tunes itself to better achieve the desired goals of the appropriate inbound and outbound marketing system campaigns" (column 3, lines 54 – 56), in which desired goals are the defined trends. The Verba et al invention evaluates a model and then performs a calculation that predicts and defines a trend, which is then used to improve the accuracy of the model.

e) Page 9 of 16: As per claims 8 and 19, applicant claims that neither Verba nor De Ville, considered alone or in combination, describe nor suggest a method of evaluating marketing campaign data that includes the steps of evaluating models using structures that segment gains charts to discover where a model is under performing. Applicant will note this feature is taught by Verba et al. in combination with De Ville. In the De Ville invention, "the primary validation tool provided by ModelMax is the lift or gains chart" (column 1 page 58). The gains chart is a common method of conveying information in the evaluation of marketing models and campaigns. Said gains chart can easily be structured and segmented in order to evaluate the results of a marketing campaign in order to develop a model for predicting the results of a future marketing campaign. The MarketMax software teaches such a model and teaches that "a good predictive model will allow you to identify the top 20% - 40% of the database records that contain 60% - 80% of the positive purchase outcomes" (De Ville, page 58, paragraph 3). Introducing a structure that segments the top 20% - 40% of the database records implies that said model could just as easily segment the bottom 20% - 40 % of the records that are under

performing for further analysis. This teaches the applicant's claim of using a segmented gains

chart to discover an under performing data model.

f) Page 13 of 16: As per claim 10, applicant claims that neither Verba nor De Ville,

considered alone or in combination, describe nor suggest a system for evaluating marketing

campaign data that includes a targeting engine configured to evaluate models and define trends

relating to the marketing campaign data. The self-optimizing marketing system that includes a

targeting engine is disclosed by Verba et al performs the same evaluation functionality as the

applicant's disclosed invention.

In light of above stated facts, examiner respectfully states that applicant's arguments have

been fully considered, deemed unpersuasive and the rejections under the prior Office Action,

mailed April 18, 2002 are maintained, along with the additional rejection of the newly added

claim 20.

Conclusion

19.   Applicant's amendment necessitates the new ground(s) of rejection presented in this

Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 1.136(a).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final

action.

20.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Eric Shaffer whose telephone number is (703) 305-5283. The

Examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax number for the organization

is (703) 305-0040/308-6306

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Receptionist whose telephone number is (703) 305-3900.

Eric Shaffer

November 25, 2002

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3620